

New Proposed amended claim

1. Device converting thermal energy into kinetic energy, related to the group
of thermodynamic machines using adiabatic compressors, adiabatic
expanders and heat exchangers that convert thermal energy into kinetic one
by means of an available outside heat source, said device being more
5 specifically related to devices using rarefied gas in a three-phase cycle in
which the first phase is an adiabatic expansion accomplished by an expander,
the second phase is an isobaric expansion accomplished by a heat exchanger,
both said expander and heat exchanger being located correspondingly in two
10 adjacent rooms of a vessel and having between them a membrane with
numerous pores, accomplishing the third phase, which is a spontaneous
isothermal gas aggregation equivalent to ideal isothermal compression,

characterized by

15 the fact that in place of the membrane stands a region (No 4, Fig. 5), located
(according to the gas flow direction) between the above mentioned heat
exchanger (No 6, Fig. 5) and expander (No 5, Fig. 5), all put in a vacuum
glass vessel (Fig. 5), said region (No 4, Fig. 5) containing numerous slots (No
26, Fig. 2), which have

20 (a) Diverging active inner surfaces (Fig. 9(b)), perfectly polished
(p. 2, line 30), with the angle (Fig. 2(ω)) between them optimized for
maximum output power (p. 6, lines 6, 9).

25 (b) Microscopic cross section comparable to the mean free path of
the molecules.

and (c) A macroscopic length of 20mm (No 30, Fig. 2),

30 said slots being grouped together as spacings (s, Fig. 9) between adjacent
parallel triangular rods (No 19, Fig. 9) and arranged first (with a number of
them) in series to form small modules (Fig. 6), in order to achieve increased
pressure difference between input and output of each module, said modules
being then grouped together in a parallel layout (Fig. 7) in respect to the gas
flow, as shown by the arrows (No 31, Fig. 7).
